

Demonstrating a Link between Chronic Fatigue Syndrome and Low Thyroid Hormone Levels

Chronic Fatigue Syndrome (CFS)



Disrupted sleep



Fatigue



Musculoskeletal pain



Cognitive impairment

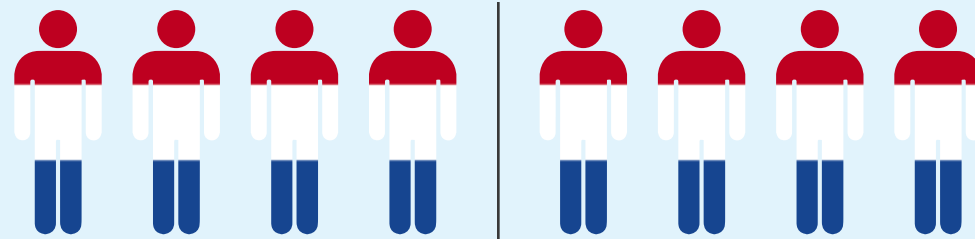


Current **CFS diagnosis relies on symptoms** and ruling out other illnesses, **but not on lab tests**. Several CFS symptoms even resemble a state of **hypothyroidism**.

Is CFS linked to low thyroid hormone levels?

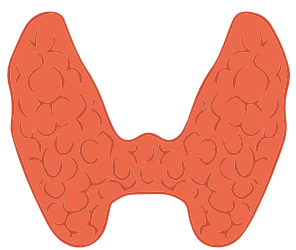
Results of a case-control study from The Netherlands

98
patients with CFS



99
age- and sex-matched
healthy controls

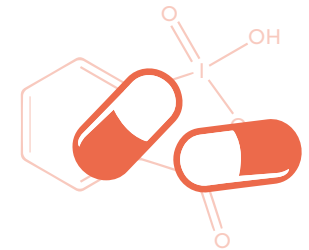
1
Thyroid
function



2
Metabolic
inflammation



3
Nutritional
factors



Patients with CFS had...

↓ T3 levels
↑ % reverse T3 levels
~ TSH levels

Subtle low-grade inflammation
↓ HDL-C
↑ TC/HDL-C
↑ Ferritin

↓ Urinary iodine status
↑ Vitamin D
~ Plasma selenium

CFS patients show lower free thyroid hormone levels pointing at 'low T3 syndrome' and a slow metabolism